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Docket No.: 52-026

JUL 0 1 2021

ND-21-0610 10 CFR 52.99(c)(3)

U.S. Nuclear Regulatory Commission Document Control Desk Washington, DC 20555-0001

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 4

Resubmittal of Notice of Uncompleted ITAAC 225-days Prior to Initial Fuel Load

Item 3.3.00.02a.ii.e [Index Number 768]

#### Ladies and Gentlemen:

Pursuant to 10 CFR 52.99(c)(3), Southern Nuclear Operating Company hereby notifies the NRC that as of June 30, 2021, Vogtle Electric Generating Plant (VEGP) Unit 4 Uncompleted Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 3.3.00.02a.ii.e [Index Number 768] has not been completed greater than 225-days prior to initial fuel load. The Enclosure describes the plan for completing this ITAAC. Southern Nuclear Operating Company will, at a later date, provide additional notifications for ITAAC that have not been completed 225-days prior to initial fuel load.

Southern Nuclear Operating Company (SNC) previously submitted Notice of Uncompleted ITAAC 225-days Prior to Initial Fuel Load for Item 3.3.00.02a.ii.e [Index Number 768] ND-19-0390 [ML19108A264], dated April 18, 2019. This resubmittal supersedes ND-19-0390 in its entirety and incorporates changes approved in Unit 4 Combined License (COL) Appendix C license amendment 165.

This notification is informed by the guidance described in NEI 08-01, *Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52*, which was endorsed by the NRC in Regulatory Guide 1.215. In accordance with NEI 08-01, this notification includes ITAAC for which required inspections, tests, or analyses have not been performed or have been only partially completed. All ITAAC will be fully completed and all Section 52.99(c)(1) ITAAC Closure Notifications will be submitted to NRC to support the Commission finding that all acceptance criteria are met prior to plant operation, as required by 10 CFR 52.103(g).

This letter contains no new NRC regulatory commitments.

If there are any questions, please contact Kelli A. Roberts at 706-848-6991.

Respectfully submitted,

Michael J. Yox

Regulatory Affairs Director Vogtle 3 & 4

Enclosure:

Vogtle Electric Generating Plant (VEGP) Unit 4

Completion Plan for Uncompleted ITAAC 3.3.00.02a.ii.e [Index Number 768]

MJY/JFV/sfr

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# Southern Nuclear Operating Company ND-21-0610 Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 4
Re-Submittal Completion Plan for Uncompleted ITAAC 3.3.00.02a.ii.e [Index Number 768]

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## **ITAAC Statement**

### **Design Commitment**

- 2.a) The nuclear island structures, including the critical sections listed in Table 3.3-7, are seismic Category I and are designed and constructed to withstand design basis loads as specified in the Design Description, without loss of structural integrity and the safety-related functions.
- 4.a) Walls and floors of the annex building as defined on Table 3.3-1 except for designed openings or penetrations provide shielding during normal operations.

## Inspections/Tests/Analyses

ii) An inspection of the as-built concrete thickness will be performed.

### Acceptance Criteria

ii.e) A report exists that concludes that the as-built concrete thicknesses of the annex building sections conform with the building sections defined in Table 3.3-1, except for designed openings or penetrations, or the report documents an evaluation of thickness deviations identified during construction and demonstrates that the as-built structures will withstand the design basis loads without loss of structural integrity and without impacting compliance with the radiation protection licensing basis.

## **ITAAC Completion Description**

Multiple ITAAC are performed to verify the nuclear island structures, including the critical sections listed in Combined License (COL) Appendix C, Table 3.3-7, are seismic Category I and are designed and constructed to withstand design basis loads as specified in the Design Description, without loss of structural integrity and the safety-related functions. The subject ITAAC requires that an inspection be performed and documented in a report that concludes that the as-built annex building sections concrete wall thicknesses conform with the building sections defined in COL Appendix C, Table 3.3-1 (Attachment A), except for designed openings or penetrations, or the report documents an evaluation of thickness deviations identified during construction and demonstrates that the as-built structures will withstand the design basis loads without loss of structural integrity and without impacting compliance with the radiation protection licensing basis.

The inspections are performed of the as-built sections (following concrete placement) in accordance with the requirements of measurement guideline APP-GW-IT-001 (Reference 1), which identifies the location and frequency of inspection points for determining wall thickness to ensure the resulting measurements are representative of the entire section being inspected. The measurements are based on the size and construction type of each section. Measurements are taken using survey equipment in accordance with site survey procedures (Reference 2).

The inspection results contained in the Unit 4 principal closure documents (Reference 3) and summarized in Attachment A conclude that the as-built concrete thicknesses of the annex

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building sections conform with the building sections defined in ITAAC Table 3.3-1, except for designed openings or penetrations, or the report documents an evaluation of thickness deviations identified during construction and demonstrates that the as-built structures will withstand the design basis loads without loss of structural integrity and without impacting compliance with the radiation protection licensing basis.

References 1 thru 3 are available for NRC inspection as part of the Unit 4 ITAAC 3.3.00.02a.ii.e Completion Packages (Reference 4).

### **List of ITAAC Findings**

In accordance with plant procedures for ITAAC completion, Southern Nuclear Operating Company (SNC) performed a review of all findings pertaining to the subject ITAAC and associated corrective actions. This review found there are no relevant ITAAC findings associated with this ITAAC.

## References (available for NRC inspection)

- 1. APP-GW-IT-001, Revision 1, "Guidelines for Concrete Wall and Slab Thickness Measurements"
- 2. 26139-000-4MP-T81C-N3201, Revision 7, "Construction Survey"
- 3. Principal Closure Document (Unit 4)
- 4. 3.3.00.02a.ii.e-U4-CP-Rev0, ITAAC Completion Package
- 5. NEI 08-01, "Industry Guideline for the ITAAC Closure Process under 10 CFR Part 52"

# Attachment A

Excerpt from COL Appendix C, Table 3.3-1\*
Definition of Wall Thicknesses for Nuclear Island Buildings, Turbine Building, and Annex Building<sup>(1)</sup>

Wall or Section Description*	Column Lines* (6)	Floor Elevation or Elevation Range*	Concrete Thickness* (2)(3)(4)(5)(8)(12)	Inspection results +	
				Minimum recorded thickness	Maximum recorded thickness
Annex Building* (11)					
Column line 2 wall	From E to H	From 107'-2" to 135'-3"	19 3/4"	X'-xx.x"	Y'-yy.y"
Column line 4 wall	From E to H	From 107'-2" to 162'-6" & 166'-0"	2'-0"	X'-xx.x"	Y'-yy.y"
N-S Shield Wall between E and F	From 2 to 4	From 107'-2" to 135'-3"	1'-0"	X'-xx.x"	Y'-yy.y"
Column line 4.1 wall	From E to H	From 107'-2" to 135'-3"	2'-0"	X'-xx.x"	Y'-yy.y"
N-S Labyrinth Wall between column line 7.8 and 9 and G to H	Not Applicable	From 100'-0" to 112'-0"	2'-0"	X'-xx.x"	Y'-yy.y"
E-W Labyrinth Wall between column line 7.1 and 7.8 and G to H	Not Applicable	From 100'-0" to 112'-0"	2'-0"	X'-xx.x"	Y'-yy.y"
Column Line 9 wall	From E to connecting wall between G and H	From 107'-2" to 117'-6"	2'-0"	X'-xx.x"	Y'-yy.y"

Wall or Section Description*	Column Lines* (6)	Floor Elevation or Elevation Range*	Concrete Thickness* (2)(3)(4)(5)(8)(12)	Inspection results +	
				Minimum recorded thickness	Maximum recorded thickness
Annex Building* (11)					
Column Line E wall	From 9 to 13	From 100'-0" to 135'-3"	2'-0"	X'-xx.x"	X'-xx.x"
Column Line 13 wall	From E to I.1	From 100'-0" to 135'-3"	2'-0"	X'-xx.x"	X'-xx.x"
Column Line I.1 wall	From 11.09 to 13	From 100'-0" to 135'-3"	2'-0"	X'-xx.x"	X'-xx.x"
Corridor Wall between G and H	From 9 to near 13	From 100'-0" to 117'-6	1'-6"	X'-xx.x"	X'-xx.x"
Corridor Wall between G and H	From 9 to 13	From 117'-6" to 135'-3	1'-6"	X'-xx.x"	X'-xx.x"
Column Line 9 wall	From E to H	From 117'-6" to 158'-0	2'-0"	X'-xx.x"	X'-xx.x"
Floor	From 2 to 4 and E to H	135'-3	0'-8"	X'-xx.x"	X'-xx.x"
Floor	From 4 to 4.1 and E to H	135'-3	1'-0" <sup>(9)</sup>	X'-xx.x"	X'-xx.x"
Floor	From 9 to 13 and E to I.1	117'-6	0'-8" (9)(10)	X'-xx.x"	X'-xx.x"
Floor	From 9 to 13 and E to I.1	135'-3	0'-8" (9)	X'-xx.x"	X'-xx.x"

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Wall or Section Description*	Column Lines* <sup>(6)</sup>	Floor Elevation or Elevation Range*	Concrete Thickness* (2)(3)(4)(5)(8)(12)	Inspection results +	
				Minimum recorded thickness	Maximum recorded thickness
Annex Building* (11)					
Containment Filtration Rms A and B (North Wall)	Between column line E to H	From 135'-3" to 158'-0	1'-0"	X'-xx.x"	X'-xx.x"
Containment Filtration Rms A and B (East wall)	Between column line E to F	From 135'-3" to 158'-0	1'-0"	X'-xx.x"	X'-xx.x"
Containment Filtration Rm A (Floor)	Between column line E to H	135'-3	1'-0" (9)	X'-xx.x"	X'-xx.x"
Containment Filtration Rm B (Floor)	Between column line E to H	150'-3	0'-8" (9)	X'-xx.x"	X'-xx.x"

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#### Notes:

- + Inspection results are Unit specific
- \* Excerpt from COL Appendix C, Table 3.3-1. All Annex Building Walls noted are "Radiation Shielding Walls".
- 1. The column lines and floor elevations are identified and included on Figures 3.3-1 through 3.3-13.
- 2. These wall (and floor) thicknesses have a construction tolerance of  $\pm$  1 inch, except as noted and for exterior walls below grade where the tolerance is  $\pm$  12 inches,  $\pm$  1 inch. These tolerances are not applicable to the nuclear island basemat.
- 3. For walls that are part of structural modules, the concrete thickness also includes the steel face plates. Where faceplates with a nominal thickness of 0.5 inches are used in the construction of the wall modules, the wall thicknesses in this column apply. Where faceplates thicker than the nominal 0.5 inches are used in the construction of the structural wall modules, the wall thicknesses in the area of the thicker faceplates are greater than indicated in this column by the amount of faceplate thickness increase over the nominal 0.5 inches. Overlay plates are not considered part of the faceplates, and thus are not considered in the wall thicknesses identified in this column.
- 4. For floors with steel surface plates, the concrete thickness also includes the plate thickness.
- 5. Where a wall (or a floor) has openings, the concrete thickness does not apply at the opening.
- 6. The Wall or Section Description, Column Line information, and Floor Elevation or Elevation Ranges are provided as reference points to define the general location. The concrete thickness of an item intersecting other walls, roofs or floors at a designated location (e.g., column line) is not intended to be measured to the stated column line, but only to the point where the intersection occurs.
- 7. Where applicable, the upper wall portions extend to their associated roofs, which may vary in elevation, e.g., sloped roofs.
- 8. From one wall/floor section to another, the concrete thickness transitions from one thickness to another, consistent with the configurations in Figures 3.3-1 through 3.3-14.
- 9. The concrete thickness is the total floor thickness, including the metal decking, where applicable.
- 10. The concrete in the kitchen and restroom areas is 2 inches thinner.
- 11. Construction deviations in the annex building from the thickness and tolerances specified in this table are evaluated in the thickness report to demonstrate that the as-built structures will withstand design basis loads without loss of structural integrity or safety functions and without impacting compliance with the radiation protection licensing basis, such as GDC 19, established radiological zoning and equipment qualification in accordance with ITAAC 3.3.00.02a.ii.e.
- 12. Nonconformances from the thicknesses and tolerances specified in Table 3.3-1 (i.e. out of tolerance conditions) are addressed under the 10 CFR Part 50, Appendix B process and subsequently are screened in accordance with the 10 CFR Part 52, Appendix D, Section VIII process, to ensure that the licensing basis is adequately maintained. Construction deviations will continue to be assessed against the licensing basis requirements and will be addressed in accordance with licensee procedures and regulatory requirements and, if applicable, a license amendment will be obtained prior to implementation of the change.